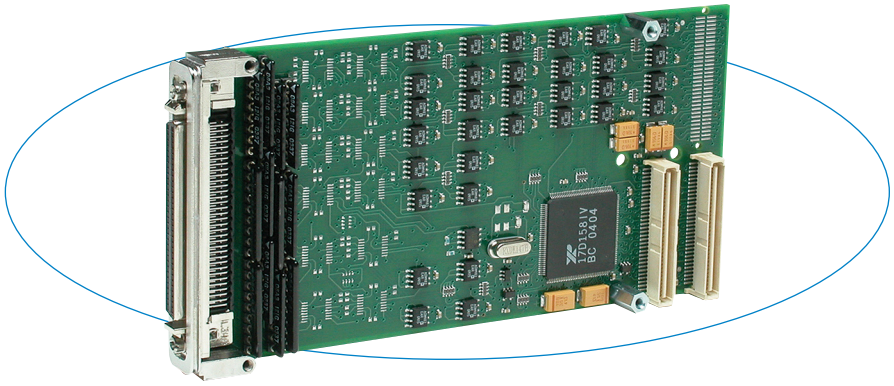
Acromag
THE LEADER IN INDUSTRIAL I/O

PMC521
Octal Serial 422/485 Communication



With eight serial ports per module, the PMC521 provides a high-density solution to reduce costs and use fewer card slots.

These modules provide eight asynchronous serial communication ports from a single PMC carrier slot. Software-configuration helps you quickly set baud rates, character-sizes, stop bits, and parity.

For more efficient data processing, each serial port is equipped with 64-character FIFO buffers on the transmit and receive lines.

The data ports generate individually controlled transmit, receive, line status, data set, and flow control interrupts. A global interrupt source register provides interrupt status indication for all eight channels to speed up interrupt parsing.

Features

- Eight asynchronous, full duplex RS422B serial ports (supports RS485)
- 64-byte transmit FIFO buffers
  64-byte receive FIFO buffers
- Programmable baud rate (up to 1.8432Mbps)
- Line-break and false start-bit detection
- Failsafe receivers
- Socketed termination and bias resistors
- Industry-standard software-compatible 16C550 configuration registers

Benefits

- High-density design lowers per-port costs and saves PMC carrier card slots for other functions.
- 64-byte FIFO buffers minimize CPU interaction for improved system performance.
- Extended temperature ranges deliver dependable operation in extreme conditions.

Specifications

RS422B Serial Ports

Configuration: Independent, non-isolated serial ports with a common single return connection.

Data rate: 20MB /second, maximum.
Standard crystal limits data rate to 1.8432Mbps.

Max. cable length: 1200 meters (4000 feet), typical.

Character size: 5 to 8 bits, software-programmable.

Parity: Odd, even, or no parity; software-programmable.

Stop bits: 1, 1-1/2, or 2 bits; software-programmable.

Data register buffers: Double buffered or 64-byte FIFO buffered, mode selectable.

Interrupts: Receiver line status (overrun, parity, framing error, or break interrupt); receive/transmit FIFO level reached or character time-out; Xon/Xoff or special character detected.

Environmental

Operating temperature: 0 to 70°C (PMC521-64) or -40 to 85°C (PMC521-64E).

Storage temperature: -55 to 125°C.

Relative humidity: 5 to 95% non-condensing.

Power: +5V (±5%), consult factory for current specifications.

MTBF: 2,321,047 hrs at 25°C, MIL-HDBK-217F, notice 2.

PMC Compliance

Conforms to PCI Local Bus Specification, Revision 2.3 and CMC/PMC Specification, P1386.1.

4K Memory Space Required: One Base Address Register.

Signaling: 3.3V and 5V compliant.

Ordering Information

PMC Modules

PMC521
Eight RS422B serial ports, front I/O connector

PMC521E
Same as PMC521 plus extended temperature range.

PMC521R
Same as PMC521 except with rear I/O connector

PMC521RE
Same as PMC521R plus extended temperature range

Customized PMC Modules

† 5086-x
Modified PMC521 with user-specified crystal/baud rate.

† Specify x = crystal frequency when ordering.
Minimum quantity per order is two units.

Software (see software documentation for details)

PMCSW-API-VXW
VxWorks® software support package

PCISW-API-WIN
Windows® DLL software support

PCISW-API-LNX
Linux™ support (website download only)

Accessories (see accessories software for details)

5025-288
Termination panel, SCSI-3 connector, 68 screw terminals

5028-432
Cable, shielded, SCSI-3 connector both ends

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